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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/648,290 | 08/24/2000 | Hiroyuki Maeda | OPS Case 500 | 5582 |

7590 09/02/2003

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| EXAMINER |
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BROADHEAD, BRIAN J

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| ART UNIT | PAPER NUMBER |
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3661

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/648,290

Applicant(s)

MAEDA, HIROYUKI

Examiner

Brian J. Broadhead

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 3-5, 8, 9, 11-16, 18, 19, 21, 22 and 24 is/are rejected.
- 7) ☒ Claim(s) 10, 17, 20 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 23 April 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5, 11-16, 18, 19, 21, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over James, 5420794, in view of the admitted prior art, and in further view of Tognazzini, 5771484.

3. James discloses a transmitter provided on a road for transmitting a signal formed of an electromagnetic wave on lines 15-18, on column 2; the automatic braking device and a receiver being provided in a vehicle wherein the braking device drives a pump in order to operate an automatic brake to wheel brake provided in a pair of right and left front wheels or rear wheels on lines 25-28, on column 2, the brakes are a hydraulic and it is inherent that there is some type of pump connected to operate the brakes automatically; the receiver outputting a control signal based on the signal transmitted by the transmitter on lines 52-61, on column 5; the automatic braking device is operated based on the control signals on lines 35-43, on column 5; the automatic braking device is operated based on a reference value corresponding to a target traveling speed set by the reference value setting means based on the control signal and the road conditions or danger state on lines 45-52, on column 7; there is a vehicle speed detection means on lines 12-25, on column 6; a temperature detection means on the road for detecting

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the atmospheric temperature reaches a given temperature and outputting a temperature signal that is transmitted to the vehicle on lines 35-50, on column 6, weather and road conditions would include temperature; and an alarm is given to the inside of the vehicle based on the control signal outputted by the receiver on lines 53-67, on column 6. James does not disclose that the brakes are anti-lock brakes, or that there are detectors directly on the side of the road; or that the reference value corresponding to a target traveling speed is set within the vehicle. It is admitted by the applicant that in the prior art there has been proposed an automatic braking device for operating a brake automatically to a vehicle regardless of intention of a driver and that an automatic braking device of this type can be structured on the basis of a conventional antilock brake control device on lines 14-18, on page 1 of the specification. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use anti-lock brakes in the invention of James because anti-lock brakes are known to offer superior control by preventing wheel lockup and they are becoming standard equipment on vehicles. Tognazzini teaches of a vehicle control system wherein there are detectors directly on the roadside on lines 28-37, on column 2; and that the reference value corresponding to a target traveling speed is set within the vehicle on lines 55-60, on column 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the roadside detectors and reference speed of Tognazzini in the invention of James and the admitted prior art because such modification would provide the best detection of actual road conditions for which the vehicle is traveling on.

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1. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over James, 5420794, in view of the admitted prior art, and in view of Tognazzini, 5771484 as applied to claim 12 above, and further in view of Cooper, 5786750.
2. James, the applicant, and Tognazzini disclose the limitations as set forth above. They do not disclose that the temperature sensor detects when the atmospheric temperature reaches a given temperature indicating a danger state that the detection means outputs a signal or that the temperature detection is in a vehicle tunnel. Cooper teaches of detectors that detect when the atmospheric temperature reaches a given temperature indicating a danger state that the detection means outputs a signal or that the temperature detection is in a vehicle tunnel on lines 55-66, on column 1, lines 45-55, on column 2, and lines 4-8, on column 7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the detectors of James, the applicant, and Tognazzini the fire detection of Cooper because the goal of Tognazzini is to protect the vehicle from road hazards and fire would be a serious road hazard.

Allowable Subject Matter

3. Claims 10, 17, 20 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record is silent on where to best position the transmitter in relations to a tunnel.

Response to Arguments

5. Applicant's arguments filed 5-30-03 have been fully considered but they are not persuasive. Even if in the invention of James the driver does not need to control the vehicle, there is still a user interface that provides updates to the driver about road, weather, and traffic conditions and this driver interface also receives commands from the driver that are forwarded to the vehicle command processor. Hence, one of ordinary skill in the art would still find it obvious to combine James and with the road sensors of Tognazzini. Also, James discloses the vehicle entering and exiting the automated highway system, this implies conventional vehicle controls are present for use off the automated highway system. Hence, one of ordinary skill in the art would still find it obvious to combine James and with the road sensors of Tognazzini. The argument that a reference value corresponding to a target traveling speed is set in the vehicle is also not convincing. Applicant's argument that the section cited in Tognazzini discloses the signal comes from outside the vehicle is not really germane since in the applicant's own invention the reference value is set from a control signal that comes from a source outside the vehicle. Tognazzini operates the same way. This speed is transmitted from the road sensors and then "set" in the vehicle.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE**

FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

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BJB
August 26, 2003



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